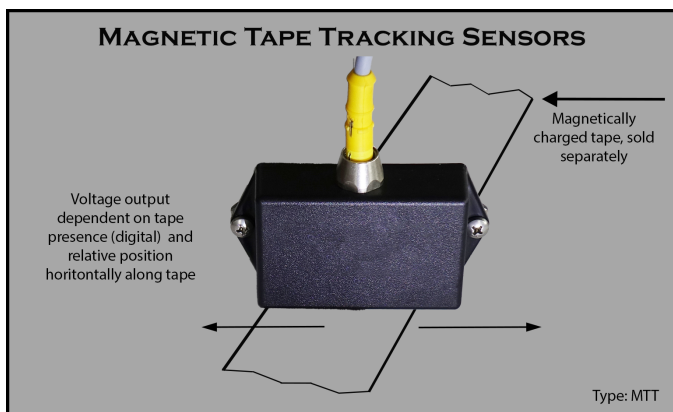


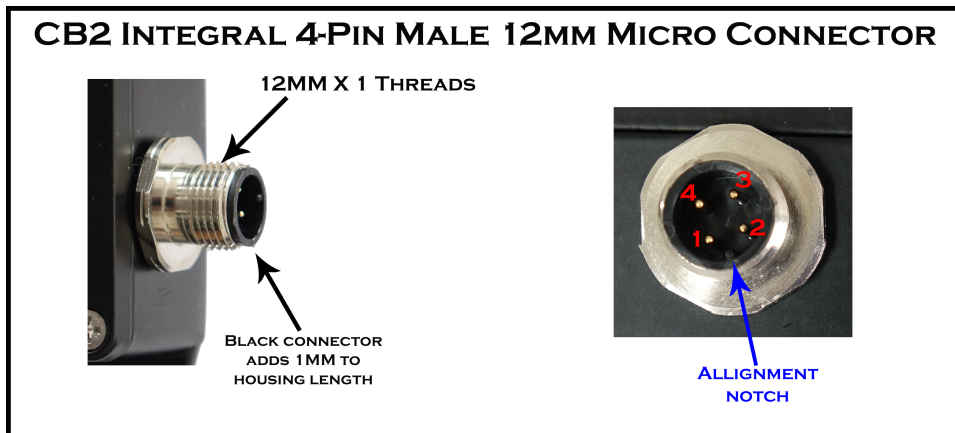
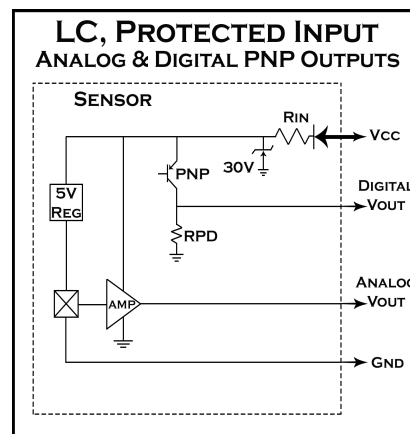
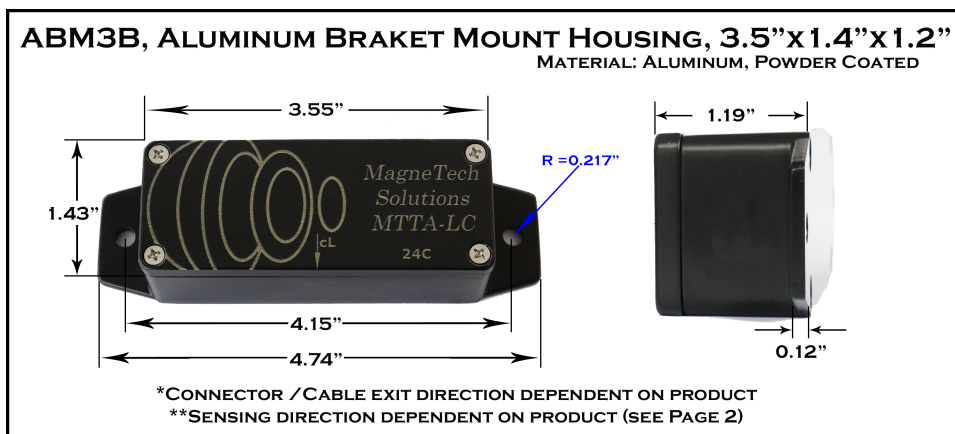
# ABM3B-MTTA-LCCB2 - Magnetic Tape Tracking Sensors

Analog Output Magnetic Tape Tracker, Load Dump Protected, both analog and pnp digital outputs, Black Aluminum Flange Mount Enclosure, 3.5"x1.4"x1.2", Integral 4 pin male 12mm micro connector



- o ANALOG OUTPUT VS OFFSET DISTANCE
- o DIGITAL 'TAPE DETECT' OUTPUT
- o DETECTS VERY LOW FIELDS
- o POTTED AND SEALED
- o WIDE SENSING GAP RANGE

ENVIRONMENTAL SPECIFICATIONS	
ABM3B HOUSING	
Corrosion Resistance	500 hours salt spray ASTM B-117
Installation Torque	80 Inch-lbs maximum
Enclosure	Nema, 1,3,4,6, & IEC IP67
Vibration	10 G's 2 to 2000 Hz Sinusoidal
Mechanical Shock	100 G's, 11mS Half-Sine



Connections Chart	
Pin 1	Vcc
Pin 2	Analog Vout
Pin 3	Ground
Pin 4	Digital Vout

CB2-MTTA

Date Code 'YYM'			
YY = YEAR, M = MONTH			
A JAN	D APR	H JUL	L OCT
B FEB	E MAY	J AUG	M NOV
C MAR	G JUN	K SEP	N DEC

The MTTA Magnetic Tape Tracking Sensors provide an analog output that varies from 0 to 10 volts as they move left and right over magnetic tape. To work properly, the tape must be magnetized with the NORTH pole pointing toward the sensor. The positions Left, Centered, and Right are defined on page 2 of this specification.

These sensors also have a digital 'Tape Detect' output that goes on only when they detect tape. This output clamps the analog voltage to 0 or 5 volts if it does not detect tape (see page 2). The 'Detection Gap' is defined on page 2.

We also offer Digital- Only Magnetic Tape Tracking Sensors that have 3 outputs 'Left, Right, and Center'. These outputs only go on when they are over the tape; if the tape moves left, the right output goes off. Contact MagneTech Solutions for more information.

# ABM3B-MTTA-LCCB2 - Magnetic Tape Tracking Sensors

Analog Output Magnetic Tape Tracker, Load Dump Protected, both analog and pnp digital outputs, Black Aluminum Flange Mount Enclosure, 3.5"x1.4"x1.2", Integral 4 pin male 12mm micro connector

## CS1169-LC

### ELECTRICAL & FUNCTIONAL SPECIFICATIONS

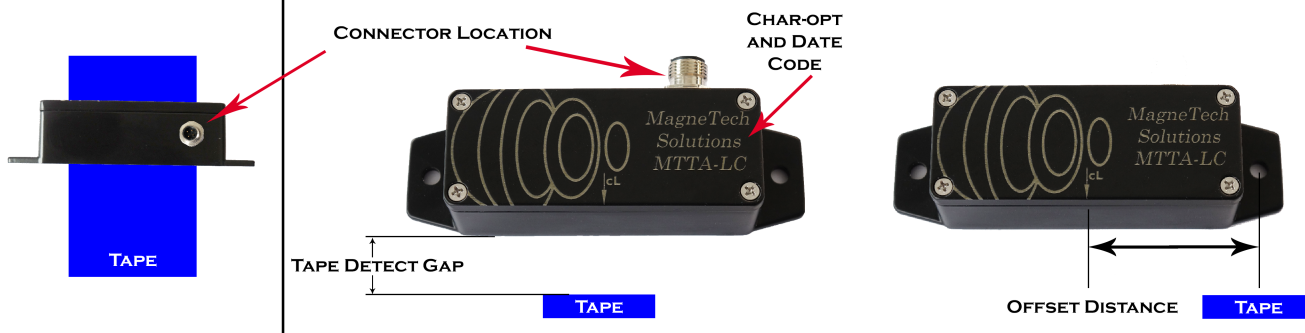
Absolute Max Limits	Conditions	MIN	MAX	Units
Supply Voltage, Vcc	Absolute Max	-36	36	Volts DC
Short Circuit Vo to GND or Vcc	Vcc = 0 to 30 volts	-----	5	Minutes
Maximum Magnetic Field	Max field at point 1/4" inside the box	-----	500	Gauss
Storage Temperature	Non powered	-40	110	Deg. C
Digital Output Power	T = 25C	--	1	W
Load Dump per ISO 7637-2	24V, 100mS, Rs = 5	--	100	Volts
ESD	Air Contact	--	-15k	Volts

Electrical Specs	Conditons	MIN	MAX	Units
Temperature Range	Operating	-40	85	Degrees C
Supply Voltage, Vcc	T = -40 to +60C	+12	+36	Volts DC
Supply Voltage, Vcc	T = -40 to +85C	+12	+24	Volts DC
Supply Current	Operating	10	45	mA
Magnet Detect Time Delay	Output delay after seeing magnet	0.2	1	mS
Magnet Lose Time Delay	Output elay after magnet goes away	5	10	mS
Analog Source Current	Analog Vout to Gnd	-3	+3	mA
Pull Down Resistor, Rpd	Internal, Digital Vout to Gns	4.9	5.1	k Ohms
Rin, Input Resistor	Internal	95	105	Ohms
<b>Digital Vout Low VOL</b>	<b>Vcc = 24, Rload &gt; 100k</b>	<b>0</b>	<b>0.7</b>	<b>Volts</b>
<b>Digital Vout High, VOH</b>	<b>Vcc = 24, Rload &gt; 100k</b>	<b>20</b>	<b>24</b>	<b>Volts</b>
Rise or fall time, PNP Output	C load < 100pf	-----	5	uS

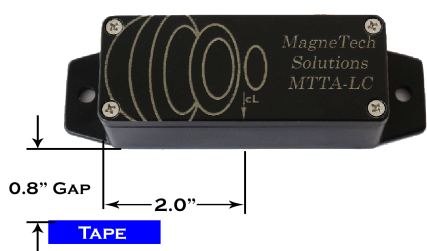
Magnetic Characteristics	Condition	Minimum	Typical	Max	Units
Tape Detect Gap Range	Centered over tape	0-1.8	0-2.5	0-3.5	Inches
Tape Left (POS 1)	Max Detect Offset Distance, .8" gap	2	2.2	3.2	Inches
Tape Right (POS 3)	Max Detect Offset Distance, .8" gap	2	2.4	3.5	Inches
<b>Analog Output</b>	<b>Tape Left 2" (position 1)</b>	<b>0.72</b>	<b>0.8</b>	<b>0.88</b>	<b>Volts</b>
<b>Analog Output</b>	<b>Tape Centered (position 2)</b>	<b>4.92</b>	<b>5</b>	<b>5.08</b>	<b>Volts</b>
<b>Analog Output</b>	<b>Tape Right 2" (position 3)</b>	<b>9.12</b>	<b>9.2</b>	<b>9.28</b>	<b>Volts</b>
<b>Analog Output</b>	<b>No magnetic field</b>	<b>4.5</b>	<b>5</b>	<b>5.5</b>	<b>Volts</b>
<b>Digital PNP Output</b>	<b>No magnetic field</b>	<b>0</b>	<b>0.01</b>	<b>0.7</b>	<b>Volts</b>

**Bold indicates 100% factory tested before shipment**

### DETECT TAPE GAP AND OFFSET DISTANCE



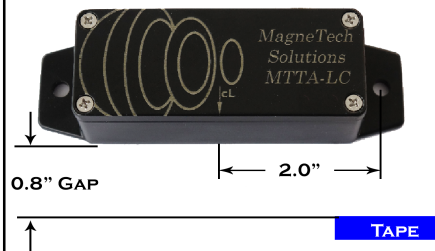
### POSITIONS ON TAPE:



**POSITION 1**



**POSITION 2**



**POSITION 3**